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Bednets Reduce Malaria

- **More than one million lives could be saved annually if insecticide-treated bednets (ITNs) were routinely used by the populations at greatest risk of malaria.**
- **Several models for delivery of ITNs have been developed, and the choice among them depends on how capable the commercial sector is to provide bednets.**
- **A new technology for dipping nets may soon turn people's conventional bednets into long-lasting bednets.**

Insecticide-treated bednets (ITNs) are a highly effective way for individuals, families, and communities to protect themselves from malaria. Consistently sleeping under an ITN can decrease severe malaria by 45%, reduce premature births by 42%, and cut all-cause child mortality by 17% to 63%. When ITN coverage rates reach 80% or more in a community, those residents not sleeping under an ITN also obtain a protective benefit.

ITN programs should target pregnant women and children under age five.

Pregnant women and children under five, particularly infants, are at highest risk for malaria-associated death and morbidity. Programs should aim to reach this high-risk population, particularly among the poor, whose numbers are greatest in rural areas.

There is no single best approach for providing ITNs to vulnerable populations, and it would be unwise to limit our strategies to just one. Several models for delivery of ITNs have been developed. The choice among them should be guided by local conditions and circumstances.

USAID supports the provision of free nets.

If a country's policy is to provide free or heavily subsidized ITNs, and this will meet national coverage requirements over time, USAID supports this strategy. Subsidies need to be targeted, however, to ensure that scarce public sector funds are spent on those most in need.

Some of the most successful models for subsidized net distribution are:

- ITNs distributed free during routine visits to antenatal clinics, health or immunization days, and other contacts with the health system;
- ITNs sold at a subsidized price to qualifying beneficiaries at government health clinics as part of regular service delivery;
- ITNs sold at a subsidized price through community-based groups; and
- Coupons/vouchers delivered through the health system to qualifying beneficiaries, providing a discount on commercially available ITNs.

These approaches and their variations are appropriate in different contexts. They are presented here in order of their pertinence to increasingly mature commercial market conditions. Where the commercial sector is largely inactive, incapable, or unwilling to handle the logistics of

delivering ITNs, it would be more effective to use the capacity of the public sector or NGOs to provide ITN services. At the other end of the range, delivery of ITNs using a coupon or voucher system may best work in areas where retail shops are active and have a demonstrated capacity to handle the logistics and financing of ITNs. Each of these approaches has advantages and challenges in relation to coverage and equity; effect on other ITN programs; effect on the health system; fraud/leakage; behavior change and exit strategies.

Long-lasting ITNs are the best option for achieving the full protection of ITNs.

The World Health Organization has approved two long-lasting ITNs: the *PermaNet®* and the *Olyset Net®*. While these products employ different technical processes, each has been certified as being capable of maintaining the full protective effects of an ITN through a minimum of 20 washes, compared with the conventional process of dipping nets in insecticide, which has an effective life of fewer than 3 washes. This means that long-lasting ITNs provide protection for a minimum of 2 years, while conventional ITNs require retreatment at least every 6 months. One disadvantage of the long-lasting ITNs is that they are at least 50% to 100% more expensive than conventional ITNs, raising concerns about their affordability. Over the coming years, new long-lasting ITNs will be introduced to the market, and they are expected to have even longer life spans and to be less expensive.

Dipping your net could soon transform it into a long-lasting ITN.

An exciting new product that is expected to be on the market in 2005 is a "long-lasting re-treatment." Employing a new technology that mixes conventional insecticide with chemical "binders," a conventional dipping of nets will be sufficient to transform them into long-lasting ITNs. The advent of "permanent retreatments" creates an extraordinary opportunity for transforming all of the non-long-lasting ITNs already in the field into long-lasting ITNs, dramatically increasing the number of households benefiting from the full protection of ITNs.

Abuja Declaration Target

By the year 2005, at least 60% of those at risk of malaria, particularly pregnant women and children under five years of age, benefit from the protective properties of insecticide-treated bednets—*regardless of their economic status.*

Where to get more information: www.maqweb.org

Reference:
Lengeler C, Cattani J, de Savigny D, eds. Net gain: a new method for preventing malaria deaths. Ottawa, International Development Research Centre/World Health Organization, 1996. Available at: http://web.idrc.ca/en/ev-9338-201-1-DO_TOPIC.html

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For more information on malaria, see the USAID Technical Reference Material at:
http://www.childsurvival.com/documents/trms/tech/Malaria August 2004.doc

A detailed discussion on "best practices" for targeted subsidies is discussed in a new Roll Back Malaria (RBM) document: Targeted Subsidy Strategies for National Scale ITNs: Principles and Approaches, which can be accessed on the RBM Web site at http://rbm.who.int/partnership/wg/wg_itn/docs/ts_strategies_en.pdf

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